



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

40

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/074,036 05/06/98 GRIMWOOD

M TER-005

RONALD CRAIG FISH  
FALK VESTAL & FISH  
16590 OAK VIEW CIRCLE  
MORGAN HILL CA 95037

LM12/0406

EXAMINER

BAYARD, E

ART UNIT

PAPER NUMBER

2731

DATE MAILED:

04/06/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/074,036

Applicant(s)

Grimwood et al

Examiner

Emmanuel, Bayard

Group Art Unit

2731



☒ Responsive to communication(s) filed on May 6, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-31 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☒ Claim(s) 1-5, 18-21, 30, and 31 is/are allowed.

☒ Claim(s) 6-17 and 29 is/are rejected.

☒ Claim(s) 22-28 is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2731

## **DETAILED ACTION**

### ***Drawings***

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 29 recites the limitation "said remote node" in page 96, line 20. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Objections***

5. Claims 22-28 are objected to because of the following informalities: the word "minslot" in claim 22, lines 34, claim 25, line 5 is not recognized. Appropriate correction is required.

Art Unit: 2731

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

7. Claims 6-17,29 are rejected under 35 U.S.C. 102(e) as being anticipated by Bingham et al U.S. Patent No 5,838,667.

As per claims 6, 7, 13, 29, Bingham et al disclose a modem for use at a head end of a system for bidirectional communication of digital data over a transmission media comprising: a master clock (see fig.6, element 220 and col.7, lines 29-35 and col.10, lines 15-50) for generating a master clock signal; means for generating upstream and downstream clock signal (see figs.1a, 1b, 6 elements 205, 206 and col.2, lines 50-67 and col.4, lines 20-40 and col.7, lines 25-67) which are phase coherent with said master clock signal said upstream clock signal having a frequency which is M/N times the frequency of said downstream clock signal where M and N are integers; means coupled to receive said downstream clock signal (see figs 1a, 1b, 6 and col.3, lines 25-67 and col.5, lines 5-67 and col.7, lines 1-15) for using it to transmit downstream data over said transmission media; and means coupled to receive said upstream clock signal (see figs 1a, 1b, 6 and col.3, lines 25-67 and col.5, lines 5-67 and col.7, lines 1-15) for using it to receive upstream data over said transmission media.

Art Unit: 2731

As per claims 8 , the system of Bingham et al inherently includes a synchronous code division multiplexing.

As per claims 9, the system of Bingham et al inherently includes a time division multiplexing.

As per claims 10, the system of Bingham et al inherently includes a DMT multiple access.

As per claims 11,12,14,15 the system of Bingham et al inherently includes mapping minislot, spreading codes and frequencies.

As per claims 16,17 the system of Bingham et al inherently includes a means for selectably altering the mapping.

#### ***Allowable Subject Matter***

8. Claims 1-5, 18-21, 30-31 are allowed over the prior art of record.
9. Claims 22-28 are objected, but would be allowable if rewritten in form to overcome the objection.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miarchock et al U.S. Patent No 5,995,483 teaches a modem using upstream clock synchronization.

Art Unit: 2731

Schlang et al U.S. Patent No 5,890,051 teaches a transceiver which supports bidirectional operation.

Kay U.S. Patent No 5,930,704 teaches a method of communication between a central office and a remote station.

Emi U.S. Patent No 5,715,275 teaches a transceiver having a spreading code sequence control.

Fuhrmann U.S. Patent No 5,745,837 teaches a SCDMA modulator and demodulator for synchronization of data transmission.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is (703) 308-9573. The examiner can normally be reached on Monday-Thursday from 8:00 AM - 5:30 PM. The examiner can also be reached on alternate Fridays.

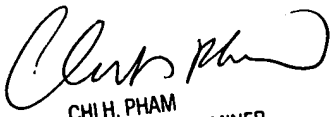
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (703) 305-4873.. The fax phone number for this Group is (703) 305-9508.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Emmanuel Bayard

Patent Examiner

March 30, 2000

  
CHI H. PHAM  
SUPERVISORY PATENT EXAMINER  
GROUP 2700  
4/5/00